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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,657	11/25/2003	Siddhartha Panda	FIS920030133US1	7420
28264	7590	07/11/2008	EXAMINER	
BOND, SCHOENECK & KING, PLLC			VINH, LAN	
ONE LINCOLN CENTER				
SYRACUSE, NY 13202-1355				
			ART UNIT	PAPER NUMBER
			1792	
			NOTIFICATION DATE	DELIVERY MODE
			07/11/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/721,657	Applicant(s) PANDA ET AL.	
	Examiner LAN VINH	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments.

1. The applicants argue that the O'Neill mask, which is not disclosed to transmit infrared radiation at all, is very different from amended claim 11 that recites "a second region having second non-zero transmittance with respect to infrared wavelength(s) suitable for use in the plasma etching". This argument has been considered but are moot in view of the new ground(s) of rejection of claim 11 under 35 U.S.C 102(b) as being anticipated by newly cited reference of Anthony et al (US 4,135,027) since Anthony discloses a mask/filter 126 having a first and a second region having non-zero transmittance with respect to infrared wavelength(s) (col 7, lines 12-60). It is noted that the claim language of "suitable for use in the plasma etching process" is considered a functional/intended use claim language. It has been held that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844,847, 120 USPQ 528,531 (CCPA 1959). Also, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

The applicants argue that since O'Neill discloses a system for developing photoresist with ultraviolet ("UV") radiation and Mathies discloses an optical system for detecting fluorescently labeled analytes in microchips., one of ordinary skill in the art would not have combined these systems in any way, much less in the precise way suggested in

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the Office Action. This argument has been considered but are moot in view of the new ground(s) of rejection of claims 16-17 under 35 U.S.C 103(a) as being obvious by newly cited reference of Anthony et al (US 4,135,027) and Mathies since Anthony discloses a method of employing optical coating. The new ground of rejection(s) are discussed below

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

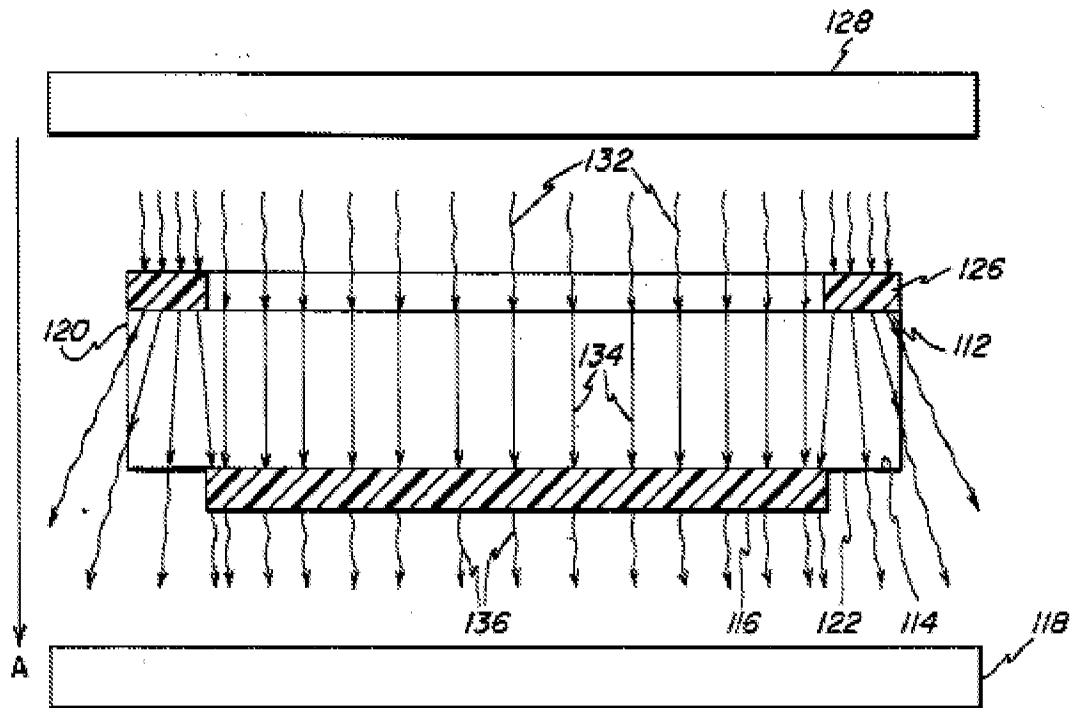
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-14, 15, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Anthony et al (US 4,135,027)

Anthony discloses a guard ring/mask 126, the ring 126 comprise the perimeter region (eccentric shaped)/ first region having a first non-zero transmittance with respect to infrared wavelength(s) 132 emitted from radiation source 128 (IR lamp), a center portion (eccentric shaped) /second region having second non-zero transmittance with respect to infrared wavelength(s) that is different than the first transmittance, wherein said first transmittance is lower than said second transmittance (col 7, lines 3-60; fig. 5)

FIG. 5



Regarding claims 11, 15, 18, 19, the recitations of "suitable for use in the plasma etching process", "to compensate for spatial etch distortions in the plasma etching process", "is positioned to reduce transmission in areas where said plasma etching process experience magnetic field cusping" and "further adapted to select for a resonant frequency of infrared radiation" are considered as a functional/intended use claim language that is not given patentable weight in these apparatus claims. The apparatus/ring taught by Anthony would be structurally capable of performing the claimed intended use. It has been held that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844,847, 120 USPQ 528,531 (CCPA 1959). Also, a claim containing a "recitation with

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respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

3. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Anthony et al (US 4,135,027)

Anthony discloses a semiconductor element embodying an optical coating comprises a front surface of guard ring 126/first surface adapted to receive and transmit infrared radiation having wavelength(s) 132 emitted from radiation source 128 (col 7, lines 3-60; fig. 5)

a guard ring 126/filtering structure having an area located to receive and transmit the infrared radiation through said first surface, with the filtering structure being characterized by a plurality of transmission regions (perimeter and center regions), with said transmission regions of said plurality of transmission regions being characterized by varying degrees of transmittance (more radiation 132 are passed through the center portion/region) with respect to the infrared wavelength(s), and with said transmission regions of said plurality of transmission regions being distributed over said area

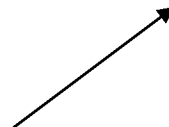
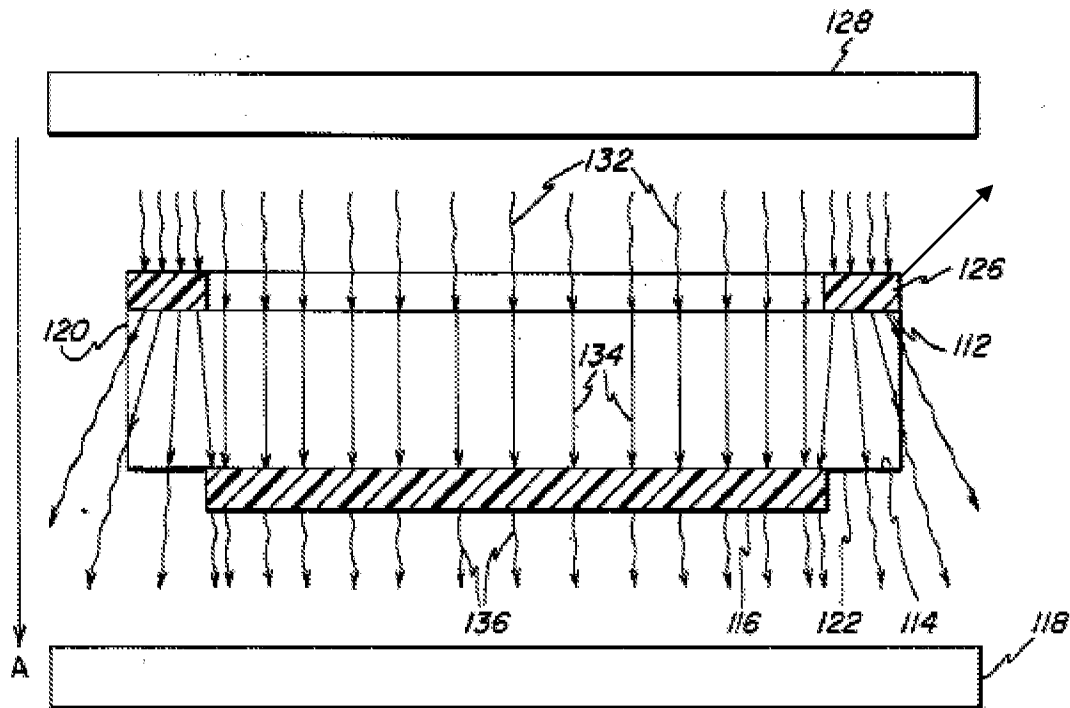


FIG. 5



It is noted that the recitations of “suitable for use in the plasma etching process”, “so that they mirror spatial etch distortions that would occur in the plasma etching process absent the selective transmission of infrared radiation by said filtering structure” are considered as a functional/intended use claim language that is not given patentable weight in these apparatus claims. It has been held that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844,847, 120 USPQ 528,531 (CCPA 1959). Also, a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the

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prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

4. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Anthony et al (US 4,135,027)

Anthony discloses an apparatus comprises:

an infrared radiation source 128 adapted to emit infrared radiation having infrared wavelength(s) (col 7, lines 10-15, 55-60)

a heat sink 118 located under the wafer 110 (fig. 5), which reads on a wafer chuck

a guard ring 126/filtering structure, located between the infrared source 128 and the wafer 110 in path of the emitted radiation, having an area located to receive and transmit the infrared radiation through said first surface, with the filtering structure being characterized by a plurality of transmission regions (perimeter and center regions), with said transmission regions of said plurality of transmission regions being characterized by varying degrees of transmittance (more radiation 132 are passed through the center portion/region), which reads on an infrared filter located between said infrared source and the wafer position in a path of the emitted infrared radiation, the filter comprising: a first region having a first non-zero transmittance with respect to the emitted infrared wavelength(s), and a second region having second non-zero transmittance with respect to the emitted infrared wavelength(s) that is less than said first non-zero transmittance with respect to the emitted infrared wavelength(s).

It is noted that the recitations of "suitable for use in the plasma etching process",

"adapted to secure the wafer at a wafer position" are considered as a functional/intended use claim language that is not given patentable weight in these apparatus claims. The heat sink 118 taught by Anthony would be structurally capable of securing the wafer at a wafer position. It has been held that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844,847, 120 USPQ 528,531 (CCPA 1959). Also, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Anthony et al (US 4,135,027) in view of Mathies et al (US 6,867,420)

Anthony guard ring/filter has been described above. Unlike the instant claimed inventions as per claims 16-17, Anthony fails to disclose that the filter comprises optical quality glass having a layer of metallic coating of a predetermined thickness, the

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thickness of said layer of metallic coating varies from the first to the second region

Mathies discloses an optical system comprises a metallic coating having a thickness on a glass substrate to minimize effect of laser scattered light (col 4, lines 45-55; fig. 4)

Since Anthony discloses that the perimeter/first region limits the transmission of radiation more than in center/second region, as discussed above, ones skilled in the art would have found it obvious to modify Anthony guard ring/mask//filter by forming a metallic coating of a predetermined thickness, as taught by Mathies, wherein the thickness of said layer of metallic coating varies from the first to the second region to more effectively limits the transmission of radiation in the first region

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAN VINH whose telephone number is (571)272-1471. The examiner can normally be reached on M-F 8:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571 272 1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lan Vinh/
Primary Examiner, Art Unit 1792

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